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Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

Claims 21 to 27 have been canceled, without prejudice, and new claims 28 to 36 have been added to more clearly recite the distinguishing features of the present invention.

Proper antecedent basis has been provided for all claimed elements, and all claimed elements and the structural relationships therebetween have been more positively and more clearly recited.

No new matter has been added, and it is respectfully submitted that new claims 28 to 36 are in full compliance with all of the requirements of 35 USC 112.

Accordingly, it is respectfully requested that the new claims be approved and entered, and that the rejection under 35 USC 112 be withdrawn.

THE DOUBLE-PATENTING REJECTION

Claims 21-27 were rejected under the judicially created doctrine of obviousness-type double patenting in view of claims 1-13 of USP 6,362,884. This rejection, however, is respectfully traversed with respect to new claims 28-35 since USP 6,362,884 does not claim "a storage section which stores position coordinates of at least one defect on the substrate to

be inspected" and "a control section which controls movement of the observation unit supporting section and the micro inspection unit so that an observation optical axis of the objective lens of the micro inspection unit is adjusted to the defect on the substrate to be inspected based on the position coordinates of the defect read from the storage section", as recited in new independent claim 28.

In addition, it is also noted that the "swinging" feature (i.e., the rotating up and down) of the substrate holder for the purpose of macro observation has been deleted from the present claims.

Accordingly, it is respectfully submitted that new claims 28-36 of the present application are patentably distinct from the claims of USP 6,362,884, and it is respectfully requested that the obviousness-type double patenting rejection be withdrawn.

THE PRIOR ART REJECTION

Claims 21-27 were all rejected under 35 USC 103 as being obvious in view of JP 04-095913 ("Kazu") taken singly or in combination with one of USP 5,479,252 ("Worster et al"), USP 4,836,667 ("Ozeki"), and JP 05-322783 ("Naoshi"). These rejections, however, are respectfully traversed with respect to claims 28-36.

According to the present invention as recited in new independent claims 28, an inspection apparatus is provided which

comprises a substrate holder, a pair of guide rails arranged on the main body along respective sides of the substrate holder in an opposing manner, an observation unit supporting section comprising a pair of support columns respectively traveling along the guide rails and a horizontal arm section connecting the support columns, and a micro inspection unit which is movable along the horizontal arm section in a direction perpendicular to the guide rails. With this structure, the substrate holder of the present invention does not move in the X and Y directions, but rather the micro inspection unit is moved in the X and Y direction based on position coordinates stored in a storage section, so that the observation optical axis of the objective lens of the micro inspection unit is adjusted to a defect.

On the other hand, the substrate holding stage disclosed in Kazu does move in the X and Y directions. Namely, according to the structure disclosed in Kazu, the stage is moved manually, so that a defect on the substrate is adjusted to a fixed spot light position. The microscope main body 7 is moved to the defect position along the microscope moving and guiding body 8 to observe the defect. And it is respectfully submitted that Kazu does not at all disclose, teach or suggest the feature of the present invention as recited in new independent claim 28 whereby the position coordinates of a defect are prestored, and the micro inspection unit (microscope) is moved in the X and Y direction based on the position coordinates, so that the observation

optical axis of the objective lens of the micro inspection unit is adjusted to the defect.

As recognized by the Examiner, Ozeki discloses a transmission light. In the structure of this reference, the objective lens is fixed and the stage is moved in the X and Y directions. For this reason, the transmission light is fixed and the condenser lens outputs a spot transmission light. By contrast, the apparatus of the present invention as recited in new claims 30 and 31 is different from the apparatus of Ozeki in that the linear transmission light source is arranged so as to face a track of the objective lens, which linearly moves along the horizontal arm of the observation unit supporting section. Therefore, if the transmission light of Ozeki were applied to the present invention, a complicated driving mechanism to linearly move the condenser lens in synchronization with movement of the objective lens would be required. In this connection, it is noted that such synchronization is difficult. By contrast, the structure of the present invention as recited in new claims 30 and 31 is very simple.

With respect to Naoshi, it is noted that this reference is also different from the claimed present invention, since the stage of Naoshi is moved in the X and Y directions. In this reference, the XY stage has a scale and an adjacent macro inspecting station detects a defect. The stage is moved in the X and Y directions to adjust the detected defect to a pointer position. The coordinate data of the XY stage at this time is

stored in a memory, and the XY stage is moved to the micro station adjacent to the macro station. In Naoshi, movement of the XY stage is controlled on the basis of the coordinate data of the defect, so that the defect can be adjusted to the observation optical axis of the objective lens of the microscope. In this case, the stage must be moved from the macro station to the micro station. In addition, the stage must be moved in the X and Y directions in each station. Thus, in Naoshi, each station requires four times as much space as the substrate to be inspected. Accordingly, the footprint of the apparatus, including the two stations, is at least eight times as large as the substrate. By contrast, according to the structure of the claimed present invention, the stage is arranged horizontally (such that it is immovable in the X and Y directions), and therefore, the footprint of the apparatus of the claimed present invention can be about one-eighth of that of the Naoshi apparatus. This difference is very significant in, for example, an apparatus for inspecting a large-size liquid crystal substrate, a side of which is 1000 mm or more. In particular, since the cost of equipment required for a clean room is about 1 million yen per 1 m³, the reduction in size of the apparatus is very important. And it is respectfully submitted that Naoshi does not take the downsizing into consideration, as in the manner of the claimed present invention.

In view of the foregoing, it is respectfully submitted that the present invention as recited in new independent claim 28, as

well as each of new claims 29-36 respectively depending therefrom, patentably distinguishes over Kazu, taken singly or in combination with any of Worster et al, Ozeki, Naoshi and/or any of the other prior art references of record, under 35 USC 103.

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Entry of the Amendment, allowance of the claims, and the passing of the application to issue are respectfully solicited.

Respectfully submitted,



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